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## Multi-level governance and power in climate change policy networks

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## ABSTRACT

This article proposes an innovative theoretical framework that combines institutional and policy network approaches to study multi-level governance. The framework is used to derive a number of propositions on how cross-level power imbalances shape communication and collaboration across multiple levels of governance. The framework is then applied to examine the nature of cross-level interactions in climate change mitigation and adaptation policy processes in the land use sectors of Brazil and Indonesia. The paper identifies major barriers to cross-level communication and collaboration between national and sub-national levels. These are due to power imbalances across governance levels that reflect broader institutional differences between federal and decentralized systems of government. In addition, powerful communities operating predominantly at the national level hamper cross-level interactions. The analysis also reveals that engagement of national level actors is more extensive in the mitigation and that of local actors in the adaptation policy domain, and specialisation in one of the climate change responses at the national level hampers effective climate policy integration in the land use sector.

## 1. Introduction

Climate change governance has evolved into a complex polycentric structure that spans from the global to national and sub-national levels, relying on both formal and informal networks and policy channels (Bulkeley et al., 2014; Jordan et al., 2015). Across as well as within countries, national, sub-national, and international state and non-state actors are involved in formulating and implementing climate policies and actions (Newell, 2000). Such a complex governance structure reflects the ‘glocal’ nature of climate change: its distinct impacts are felt at and its solutions involve multiple levels of governance (Gupta et al., 2007).

Although research on multi-level governance (MLG) of climate change has increased in recent years, we do not understand well how power impacts the integration of policy decision-making processes across levels of governance (Doherty and Schroeder, 2011; Gupta, 2014; Marquardt, 2017). In particular, the MLG literature has focused on national-supranational relations, while national-subnational

networking remains less explored (but see Jänicke and Quitzow, 2017; Velazquez Gomar et al., 2014). The predominantly global nature of climate change mitigation and local nature of climate change impacts and adaptation also pose specific MLG challenges for climate policy integration. How cross-level interaction differs between the mitigation and adaptation sub-domains remains largely unexplored (Di Gregorio et al., 2017a; Jordan et al., 2012; Locatelli et al., 2015). Finally, many studies have looked at supranational MLG processes, such as environmental governance in the EU and at global-national linkages in climate change governance (Bache, 1998; Betsill and Rabe, 2009; Hooghe, 1996; Jordan et al., 2012; Piattoni, 2009). However, MLG of climate change faces distinct challenges in the Global South and remains an underexplored area (but see Bisaro et al., 2010; Fahey and Pralle, 2016; Gallemore et al., 2015; Gruby and Basurto, 2013; Gupta, 2007; Jørgensen et al., 2015; Korhonen-Kurki et al., 2016; Locatelli et al., 2017; Rantala et al., 2014; Ravikumar et al., 2015; Rosenau, 2007; Sanders et al., 2017).

This article addresses all of the aforementioned three gaps. First, it

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